

DENNIS P. CURRAN ET AL.
Serial No.: 09/602,105

REMARKS

Claims 1 through 20 remain before the Examiner for reconsideration. Claims 6 and 15 have been amended. The amendments to those Claims are indicated in the Appendix hereto in which additions to the claims are marked by underlining and deletions from the claims are marked by bracketing.

In the Office Action, the Examiner rejected Claims 6 and 15 under 35 U.S.C. Section 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." Specifically, the Examiner asserted that:

Claims 6 and 15 recite the limitation 'R³ is a perfluoroalkyl group' in lines 1-2 of the claims. There is insufficient antecedent basis for this limitation in the claim. Note that claims 1 and 10 (in which claims 6 and 15 depends respectively) limit the variable R³ as being 'an alkyl or aryl group'.

Applicants have amended Claims 1 and 10 to obviate the Examiner's rejection. The Applicants respectfully assert that the claims, as amended, comply fully with the requirement of Section 112.

The Examiner also rejected Claims 10-12, 16, 19 and 20 under 35 U.S.C. Section 102(b) "as being clearly anticipated by U.S. Pat. No. 3,590,060." Specifically, the Examiner asserted that:

The '060 U.S. Patent discloses a series of monomeric tin compounds containing at least one 3,3,3-trifluoropropyl group. See entire patent, particularly, column 1, lines 47-64 and examples.

Applicants respectfully traverse the Examiner's rejection.

The '060 Patent discloses tin compounds that include one or more trifluoropropyl groups ((CF₃CH₂CH₂)₃-). Although, the trifluoropropyl groups of the '060

DENNIS P. CURRAN ET AL.
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Patent contain fluorine atoms, those groups are not a fluorous groups as defined in the present invention. In that regard, page 6 of the present specification sets forth that:

As used herein, the term "fluorous", when used in connection with an organic (carbon-containing) molecule, moiety or group, refers generally to an organic molecule, moiety or group having a domain or a portion thereof rich in carbon-fluorine bonds (for example, fluorocarbons or perfluorocarbons, fluorohydrocarbons, fluorinated ethers and fluorinated amines). Fluorous compounds generally preferentially partition into a fluorous phase during fluorous-organic phase separation.

The trifluoropropyl groups of the '060 patent do not contain sufficient fluorine atoms to cause the compounds thereof to partition sufficiently preferentially into a fluorous phase to achieve an effective fluorous-organic phase separation.

The Examiner also rejected Claims 1-16 under 35 U.S.C. Section 102(b) "as being clearly anticipated by Curran et al., Bioorganic & Medicinal Chemistry Letters, Vol. 8, No. 17, pp. 2403-2408 (1998)." Specifically, the Examiner asserted that:

The reference discloses the use of "propylene spaced" allyl tin reagents useful in carrying out a chemical reaction, particularly transition metal catalyzed allylations.

Applicants respectfully traverse the Examiner's rejection

Curran et al. disclose currently available organotin reagents having the generalized formula $[(Rf)Rs]_3SnX$. Such compounds and their attendant limitations are discussed on pages 3-4 of the present specification.

To the contrary, the fluorous tin compounds of the present invention have the formulas $X^1Sn(R)_n[Rs(Rf)]_{3-n}$, $X^1X^2Sn[Rs(Rf)]_2$ or $O=Sn[Rs(Rf)]_2$, wherein n is 1 or 2. The fluorous methods and fluorous tin compounds of the present invention thus include one or two fluorous groups attached to a tin atom, rather than three such groups as disclosed in Curran et al. The present inventors have discovered that the problems


DENNIS P. CURRAN ET AL.
Serial No.: 09/602,105

associated with "tri-fluorous" tin compounds, reagents and methods such as disclosed in Curran et al. (see pages 3-4 of the specification) are reduced or eliminated using the fluororous methods and fluororous tin compounds of the present invention.

In view of the above remarks, the Applicants respectfully request that the Examiner, indicate the allowability of Claims 1-20, and arrange for an official Notice of Allowance to be issued in due course.

Respectfully submitted,

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Appendix 1

Version with markings to show changes made

Please delete the text of Claims 6 and 15 and insert therefor the following:

6. (Once Amended) The method of Claim 1 wherein [R³] R_f is a perfluoroalkyl group.

15. (Once Amended) The compound of Claim 10 wherein [R³] R_f is a perfluoroalkyl group.